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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MILLER, MARTIN E	

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/468,155	GRANT ET AL.	
	Examiner	Art Unit	
	Martin Miller	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 6-12, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killcommons et al. (hereinafter Killcommons), US 6424996 B1, and De Bonet, US 5819288. As per claim 1, Killcommons teaches:

a network extending between the first and second locations (col. 1, ll. 15, 20, col. 2, ll. 15-21, col. 3, ll. 58-65);

a server (figure 1, element 20) located at the first location and connected to facilitate transfer of data between the first image storage unit and the second image storage unit (figures 2A-2D show various configurations that can be networked together) through the network (col. 7, ll. 7-10);

a first imaging device (modality, col. 7, ll. 3-6) located at the first location and connected to generate for transmission on the network (server, 20) first imaging data resulting from a first patient and first identification data (patient histories, col. 5, ll. 27-31) identifying the first imaging data; Clearly, one of ordinary skill would have some image identifying information to associate images to a particular patient.

a first interface unit (figure 2A-2D, element 22 data interface) located at the first location and arranged to store first stored image data on the first image storage unit (figs. 2A-2D, element 30) in response to the first imaging data;

a second imaging device located at the second location (second modality, col. 7, ll. 4-6) and connected to generate for transmission on the network second imaging data resulting from a second patient and second identification data (patient histories, col. 5, ll. 27-31) identifying the second imaging data. Clearly, one of ordinary skill would have some image identifying information to associate images to a particular patient.

a second interface unit (figure 2A-2D, element 22 data interface) located at the second location and arranged to store second stored image data on the second image storage unit (figs. 2A-2D, element 30) in response to the second imaging data; Killcommons system is web-based and therefore accessible by multiple remote users as shown in figure 1, elements 50 (first user unit) and 80 (second user unit).

a first workstation (first user unit, fig. 1, element 50, col. 11, ll. 5-7,18-23))located at the first location and connected to create a first image (modality, fig. 1, element 12 or 16) in response to the first stored image data, to create a second image in response to the second stored image data, to view said first and second identification data, by accessing (col. 5, ll. 17-22) said

first and second stored identification data in the server through said network and to transmit at least a first request (col. 4, ll. 59-61) for the second stored image data from the second image storage unit resulting in transfer of the second stored image data from the second image storage unit (server or remote user, col. 5, ll. 17-22) so that said second image can be created at the first workstation; and

a second workstation located at the second location (second user unit, fig. 1, element 80) connected to create a third image in response to the first stored image data, to create a fourth image in response to the second stored image data (modality, fig. 1, element 12 or 16), to view said first and second identification data by accessing (col. 5, ll. 17-22) said first and second stored identification data in the server through said network and to transmit at least a second request (col. 4, ll. 59-61) for the first stored image data from the first image storage unit resulting in transfer of the first stored image data from the first image storage unit (server or remote user, col. 5, ll. 17-22) so that said first image can be created at the second workstation.

Killcommons does not specifically teach creating multiple images. However, Killcommons system is a web-based system implemented to facilitate remote viewing of medical images by experts to assist in the diagnosis and treatment of distant patients. Such diagnosis and treatment may require multiple experts to view the image data contemporaneously. A web-based system allows viewing of the same information simultaneously by different users. Also, Killcommons notes that his system can be configured in a variety of ways known to those of ordinary skill in the art (col. 7, ll. 10-14 and 61-65).

Also, Killcommons does not specifically teach storing first or second stored identification data on the server in response to the second identification data as provided by the first or second

interface. However, De Bonet teaches an image classification and retrieval system that utilizes an image database that stored pointers to full image data (col. 13, ll. 62-67) and an image database that can distribute data over a plurality of Internet and/or other servers (col. 14, l. 61-col. 15, l. 1). Using De Bonet's image retrieval teachings in combination with Killcommons' medical imaging suggestion of using the server of his system to retrieve useful data from other remote hosts, it would have been obvious to one of ordinary skill in the art to use the textual patient data as taught by De Bonet to search a single server database that has pointers to the patient study imagery to retrieve the other useful data from other remote hosts.

Furthermore, it would have been obvious to one of ordinary skill in the art to use the browser enhancement module of Killcommons to avoid truncation of radiological files with numerous images or to acquire new medical data directly form a modality (col. 5, ll. 45-53).

As per claim 2, Killcommons teaches:

wherein said network comprises a highspeed network (col. 1, ll. 35-37).

As per claim 3, Killcommons teaches:

wherein said network comprises an ATM network (col. 8, ll. 5-7).

As per claim 4, Killcommons teaches:

wherein said network comprises a slowspeed network (ISDN, col. 10, ll. 60-66) (The examiner is interpreting slowspeed to be less than 155Mbytes/s since the disclosure defines highspeed to be at least 155 M bytes) and (see figures 2A-2D) wherein said apparatus further comprises a first image transfer server located at said first location and a second image transfer server located at the second location (col. 10, ll. 46-57), the first and second image transfer servers being connected to transfer the first stored image data to the second image storage unit

through the network and to transfer the second stored image data to the first image storage unit through the network (figure 1, server 20).

As per claim 6, Killcommons teaches:

a radiology information system and wherein a portion of the first identification data is provided by the radiology information system (col. 3, ll. 58-61). Killcommons annotation data would clearly include some identification data that is input at the modality, col. 6, ll. 65-67)

As per claim 7, Killcommons teaches:

wherein the first imaging device comprises a computed tomography unit (col. 7, ll. 25-26).

As per claim 8, Killcommons teaches:

wherein the second imaging device comprises a magnetic resonance imaging device (col. 7, l. 25).

As per claims 9-12, and 14-16, they recite substantially the same limitations as claims 1-4, 6-8 above and analogous remarks apply.

5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killcommons and De Bonet as applied to claims 4 above, and further in view of Computer Dictionary, Third edition, Microsoft Press, 1997, ISBN 1-57231-446-X, p. 462.

As per claim 5, Killcommons teaches a variety of connection possibilities (fig. 3, col. 10, ll. 60-66). But Killcommons does not specifically teach a T1 connection. However, the Computer Dictionary teaches that T1 connections are well known. (p. 462 definition of T-carrier). AT&T introduced the T-Carrier service in 1993 which defined by 4 levels: T1, T2, T3 and T4. Therefore, Computer Dictionary teaches:

wherein the network comprises a T-1 telephone line (p. 462).

It would have been obvious to one of ordinary skill in the art to use a T1 line to network the various computers on a T-carrier system to increase transmission capabilities of a system as taught by Killcommons and De Bonet to facilitate using off-the-shelf equipment thereby reducing the cost of implementing a telemedicine system.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following articles refer(s) to medical imaging databases: "ImageNet: a global distributed database for color image storage, and retrieval in medical imaging systems", by Martinez et al., Fifth Annual IEEE Symposium on Computer-based Medical Systems, 17 June 1992, and "An Architecture for Naval Telemedicine", by Chimiak et al., IEEE Transactions on Information Technology in Biomedicien, Vol. 1, No. 1, March 1997. The following U.S. patent(s) refer(s) to digital image management: Sitka et al., US 6349373.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Miller whose telephone number is (703) 306-9134. The examiner can normally be reached on Monday-Friday, Maxi-flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MGM
2/14/03

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